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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,450	09/30/2003	Walter Etter	11	4124
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EXAMINER				
CHAWAN, VIJAY B				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/674,450

Applicant(s)

ETTER, WALTER

Examiner

Vijay B. Chawan

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1-21 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. As per the most recent interpretation of the Interim Guidelines regarding 35 U.S.C. 101, claims 1-21 define non-statutory processes because they merely manipulate an abstract idea (the mathematical manipulation of data (speech information)) without a claimed limitation to produce a useful, concrete, tangible result. If the acts of a claimed process manipulate only numbers, abstract concepts or ideas, or signals representing any of the foregoing, the acts are not being applied to appropriate subject matter (Benson, 409 U.S. at 71-72, 175, USPQ at 676). Furthermore, claims define nonstatutory processes if they simply manipulate abstract ideas (Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759). As for guidance to areas of statutory subject matter, see 35 U.S.C. 101 Interim Guidelines (with emphasis of the Clarification of Interim Guidelines For Examination of Patent Applications for Subject Matter Eligibility); as an example, in Alappat, the claimed output smooth waveform (consisted of lighting pixels on an oscilloscope/display) is a useful, concrete, tangible, final result; in Arrhythmia, the claimed useful, concrete, tangible, final result represented the condition of a patient's heart; in State Street, the claimed useful, concrete, tangible, final result was data output that represented a final share price

momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades. In the current claims, there is not a claimed active step of producing a useful, concrete, tangible, final result.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Thyssen et al., (6,240,386).

As per claim 1, Thyssen et al., teach a method for processing a voice signal in a communications network, the method comprising: partially decoding a bit stream corresponding to an encoded version of the voice signal to obtain an excitation parameter corresponding to the voice signal; and estimating a noise level of the voice signal using the excitation parameter that is obtained directly from the partially decoded bit stream (Col.7, line 36 – Col. 19, line 55).

As per claim 2, Thyssen et al., teach the method according to claim 1, wherein the excitation parameter comprises a fixed codebook excitation component (Col.7, line 36 – Col. 19, line 55).

As per claim 3, Thyssen et al., teach the method according to claim 1, wherein the excitation parameter comprises a fixed codebook gain table index (Col.7, line 36 – Col. 19, line 55).

As per claim 4, Thyssen et al., teach the method according to claim 1, wherein the excitation parameter comprises a fixed codebook gain parameter (Col.7, line 36 – Col. 19, line 55).

As per claim 5, Thyssen et al., teach the method according to claim 4, further comprising the step of multiplying the fixed codebook gain parameter by a scaling factor (Col.7, line 36 – Col. 19, line 55).

As per claim 6, Thyssen et al., teach the method according to claim 5, wherein the scaling factor is a constant value (Col.7, line 36 – Col. 19, line 55).

As per claim 7, Thyssen et al., teach the method according to claim 6, wherein the constant value is approximately 0.3 (Col.7, line 36 – Col. 19, line 55).

As per claim 8, Thyssen et al., teach the method according to claim 1, wherein the excitation parameter comprises a fixed codebook gain component and an adaptive codebook gain component (Col.7, line 36 – Col. 19, line 55).

As per claim 9, Thyssen et al., teach the method according to claim 8, further comprising the step of multiplying the fixed codebook gain component by a scaling factor (Col.7, line 36 – Col. 19, line 55).

As per claim 10, Thyssen et al., teach the method according to claim 9, wherein the scaling factor is a variable scaling factor (Col.7, line 36 – Col. 19, line 55).

As per claim 11, Thyssen et al., teach the method according to claim 10, further comprising the step of computing the variable scaling factor as a function of the adaptive codebook gain component (Col.7, line 36 – Col. 19, line 55).

As per claim 12, Thyssen et al., teach a method for estimating noise in a speech signal in a communications network, wherein the speech signal is encoded and transported through the network as a bit stream, the method comprising: partially decoding the bit stream to obtain a fixed codebook excitation component and an adaptive codebook excitation component corresponding to the encoded speech signal; and estimating a noise level of the speech signal using the fixed codebook excitation component and the adaptive codebook excitation component that is obtained directly from the partially decoded bit stream (Col.7, line 36 – Col. 19, line 55).

As per claim 13, Thyssen et al., teach the method according to claim 12, further comprising the step of scaling the fixed codebook excitation component according to a constant value (Col.7, line 36 – Col. 19, line 55).

As per claim 14, Thyssen et al., teach the method according to claim 12, further comprising the step of scaling the fixed codebook excitation component as a function of the adaptive codebook excitation component (Col.7, line 36 – Col. 19, line 55).

As per claim 15, Thyssen et al., teach an apparatus for processing a speech signal, the apparatus comprising: a decoder for partially decoding a bit stream corresponding to an encoded speech signal to extract an excitation parameter; and a noise estimator operable to estimate a noise level in the speech signal using the

excitation parameter that is obtained directly from the partially decoded bit stream (Col.7, line 36 – Col. 19, line 55).

As per claim 16, Thyssen et al., teach the apparatus according to claim 15, wherein the excitation parameter comprises a parameter selected from the group consisting of a fixed codebook excitation component, a fixed codebook gain table index, and a fixed codebook gain parameter (Col.7, line 36 – Col. 19, line 55).

As per claim 17, Thyssen et al., teach the apparatus according to claim 15, further comprising a multiplier element operable to multiply the excitation parameter by a scaling factor (Col.7, line 36 – Col. 19, line 55).

As per claim 18, Thyssen et al., teach the apparatus according to claim 17, wherein the scaling factor is a constant value (Col.7, line 36 – Col. 19, line 55).

As per claim 19, Thyssen et al., teach the apparatus according to claim 15, wherein the excitation parameter comprises a fixed codebook gain component and an adaptive codebook gain component (Col.7, line 36 – Col. 19, line 55).

As per claim 20, Thyssen et al., teach the apparatus according to claim 19, further comprising a multiplier element operable to multiply the fixed codebook gain component by a scaling factor (Col.7, line 36 – Col. 19, line 55).

As per claim 21, Thyssen et al., teach the apparatus according to claim 20, wherein the scaling factor is variable as a function of the adaptive codebook gain component (Col.7, line 36 – Col. 19, line 55).

Response to Arguments

5. Applicant's arguments filed 10/03/08 have been fully considered but they are not persuasive. Applicant traverses the 35 U.S.C. 101 rejection stating that estimation of noise produces a tangible, concrete result. Examiner disagrees. Claims 1-21 are directed toward processing which does not fall into one of the enumerated four categories of patent eligible subject matter recited in 35 U.S.C. 101 (process, machine, manufacture, or composition of matter).

Claims **1-21** are not directed toward:

1) a process (nothing is processed/transformed, partially decoding a voice signal and estimating a noise level of the voice signal using the excitation parameter that is obtained directly from the partially decoded bit stream); a statutory "process" under 35 USC 101 must (a) be tied to another statutory category (such as a manufacture or a machine), or (b) transform underlying subject matter (such as an article or material) to a different state or thing. Claims 1-21 neither transform underlying subject matter nor positively recite structure associated with another statutory category, and therefore do not define a statutory process.).

Applicant also argues that the cited reference is mostly toward an encoding process, without any details of the decoding process. Examiner disagrees. All through the cited reference, Thyssen et al., do disclose a decoding process for noise estimation

and compensation. In Figures 12-15, and Column 43, line 49 through Column 46 line 21, Thyssen et al., do show a decoding process for noise estimation and compensation.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vijay B. Chawan whose telephone number is (571) 272-7601. The examiner can normally be reached on Monday Through Friday 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Vijay B. Chawan/
Primary Examiner, Art Unit 2626

vbc
1/21/09